

SEEDS

for the
NURSERYMAN
AND
FORESTER

1958 - 1959

F. W. SCHUMACHER
HORTICULTURIST
SANDWICH, MASS.

Telephone SAGAMORE 659

PRICE ADJUSTMENTS — — See page 28

TERMS

Deliveries are subject to yield of crops and safe arrival of consignments.

It is not possible to have all items listed available at all times. A number of perishable seeds cannot be stored successfully and must be ordered in season. All seeds are offered subject to crop failures or short supplies.

Seeds are sold without warranty, expressed or implied, as to description and productiveness. Goods should be carefully inspected upon arrival and claims for condition made at once. We cannot consider claims after seeds have been stored or planted.

All shipments travel at buyer's risk and claims for damages in transit must be taken up with carriers.

CAUTION—While it is true that plants grown from seed of horticultural varieties often yield superior plant material in comparison to that grown from nondescript seed, we wish to emphasize that seeds of such varieties or hybrids, with few exceptions, cannot be expected to come true to name. They are offered here for the convenience of competent plantsmen, for research and breeding work only.

CUSTOMERS OTHER THAN PROFESSIONALS—please note that their orders for pound lots will be handled in line with all others. Orders for small quantities of assorted items must wait their turn to be filled after arrival of respective items from sources. We suggest that such orders be placed with us prior to March 1st. During the busy spring and fall shipping seasons orders for small amounts of seeds cannot be filled promptly. Please confine correspondence concerning small orders to the most necessary and attach a stamped return envelope if your inquiry does not concern an order. The right is reserved to return orders received in excess of our facilities.

PRICES—subject to change without notice, are f.o.b. Sandwich, Mass.

PAYMENT—for customers of approved credit upon receipt of invoice. For cash remittance we will pack, and forward free of charge, parcel post shipments within the states. Customers may, at their option, deduct 3% for cash discount from seed total of order and add approximate amount of postage and packing if order amounts to \$10.00 and over. For orders or shipments less than \$5.00 in value please remit 50c extra for handling.

ORDERING—We request that written orders be a separate part of any correspondence and clearly show amount and price of each item listed. Quantities smaller than listed cannot be supplied.

ABBREVIATION—N. E. stands for New England seed, a sign of hardness; d.b. for dried berries; d.h. for dried hips; asterisk (*) denotes new or insufficiently known plants of merit.

OR—The designation OR stands for certificates of origin obtained from individual sources and held in our files.

WE ARE IN THE MARKET FOR TREE AND SHRUB SEEDS OF ALL KINDS.

	oz.	1/4 lb.	lb.
ABIES <i>alba</i> (<i>pectinata</i>) ,			
<i>amabilis</i> .....		.90	2.50
<i>balsamea</i> , Lake States		2.00	5.75
<i>cephalonica</i>		1.75	5.00
<i>cilicica</i>		1.10	3.00
<i>concolor</i> , California (<i>lowiana</i>)		1.20	3.25
<i>concolor</i> , Colorado		1.85	5.00
<i>firma</i>		1.85	5.00
<i>fraseri</i>		1.10	3.00
<i>grandis</i>		4.50	12.00
<i>homolepis</i>		2.00	5.75
<i>lasiocarpa</i>		1.50	4.25
<i>magnifica</i>		2.20	6.00
<i>mariesi</i>		2.00	5.75
<i>nordmanniana</i> ,		1.65	4.50
<i>pinsapo</i>		1.35	3.75
<i>pinsapo glauca</i>		1.10	3.00
<i>procera</i> (<i>nobilis</i>)		1.25	3.50
<i>sachalinensis</i>		2.35	6.50
<i>veitchii</i>		1.85	5.00
<i>veitchii</i>		1.40	4.00
ACACIA <i>armata</i>	1.50	4.50	
<i>baileyana</i> .....	.50	1.35	3.75
<i>cultiformis</i>	1.00	2.70	7.50
<i>cyanophylla</i> .....	.50	.90	2.50
<i>cyclops</i> .....	.60	1.65	4.50
<i>decurrans</i> .....	.50	1.10	3.00
<i>decurrans dealbata</i> .....	.50	1.25	3.50
<i>decurrans dealbata</i> , fast growing cultural selection .....	.65	1.75	5.00
<i>decurrans mollis</i> (<i>mollissima</i>) .....	.50	1.20	3.25
<i>farnesiana</i> .....	.50	1.10	3.00
<i>horrida</i> .....	.50	1.25	3.50
<i>longifolia</i> .....	.60	1.65	4.50
<i>melanoxylon</i> .....	.50	1.25	3.50
<i>podalyriaefolia</i>	1.75	4.50	12.00
<i>pycnantha</i> .....	.50	1.30	3.75
<i>retinodes floribunda</i> .....	.75	1.85	5.50
<i>saligna</i> .....	.45	.70	2.00
ACANTHOPanax <i>sieboldianus</i>	1.65	4.50	
<i>spinosus</i>	1.70	4.75	
ACER <i>campestre</i> .....	.45	1.00	
<i>ginnala</i>	1.10	3.00	
<i>negundo</i> .....	.50	1.00	
<i>palmatum</i> , small seeded	1.65	4.50	
<i>palmatum atropurpureum</i>	1.00	2.75	7.50
<i>palmatum atropurpureum dissectum</i>	1.75	4.50	12.00
<i>platanoides</i> .....	.50	1.25	
<i>pseudoplatanus</i> .....	.45	1.00	
<i>saccharum</i> .....	.90	2.50	
<i>spicatum</i>	1.50	4.25	
AILANTHUS <i>altissima</i> (<i>glandulosa</i>)			1.00
AKEBIA <i>quinata</i>			1.25
<i>lobata</i>			3.50
ALBIZZIA <i>julibrissin</i>			1.50
<i>julibrissin rosea</i>			3.75
<i>lophanta</i> .....			.50
			1.00
			1.00
			3.25
			2.75

	oz.	1/4 lb.	lb.
AMELANCHIER <i>alnifolia</i> , clean	1.40	4.00	11.00
<i>alnifolia</i> , d.b.		1.75	4.75
AMPELOPSIS (see also <i>Parthenocissus</i>) <i>aconitifolia</i> ,			
N. E., d.b.	1.00		
<i>brevipedunculata</i> (<i>heterophylla</i>) clean		1.10	3.00
AMORPHA <i>canescens</i>		1.25	3.50
<i>fruticosa</i>		.50	1.25
ANDROMEDA <i>glaucophylla</i>	1.00	pkt.	
ARALIA <i>chinensis</i>		2.25	6.25
<i>elata</i>		1.75	5.00
<i>spinosa</i> , d.b.		1.10	3.00
ARBUTUS <i>menziesii</i> , d.b.		1.20	3.25
<i>unedo</i> , clean	1.10	3.00	
ARCTOSTAPHYLOS <i>bicolor</i> , d.b.		2.20	6.00
<i>drupacea</i> , d.b.		1.85	5.50
<i>glauca</i> , clean	.75	2.20	6.00
<i>glandulosa</i> , d.b.		2.75	7.50
<i>manzanita</i> , d.b.		1.00	3.00
<i>pungens</i> , d.b.		1.85	5.50
<i>tomentosa</i> , d.b.		1.75	5.00
<i>uva ursi</i> , clean	1.35	3.20	8.50
ARDISIA <i>crenulata</i>		1.85	5.50
<i>japonica</i>		2.50	7.00
ARECASTRUM <i>romanzoffianum</i> (<i>Coccus plumosa</i>)			
250 seeds	1.50	—	1,000 seeds 5.00
ARISTOLOCHIA <i>tomentosa</i>		1.40	4.00
ARONIA <i>arbutifolia</i> , d.b.		90	2.50
<i>arbutifolia brilliantissima</i> , d.b.		1.10	3.00
<i>melanocarpa</i> , clean	2.50	7.00	
<i>melanocarpa</i> , d.b.		.65	1.75
ASIMINA <i>triloba</i>		.90	2.50
AZALEA <i>alabamensis</i>	1.00	1/32 oz., 3.00 1/8 oz.	
<i>albrechtii</i>		1.00	1/32 oz.
<i>arborescens</i> , N. E.	1.00	1/16 oz., 3.00 1/4 oz.	
<i>atlantica</i>		.75	pkt.
<i>austrina</i>	1.00	1/32 oz., 3.00 1/8 oz.	
<i>bakeri</i>	1.00	1/32 oz., 3.00 1/8 oz.	
<i>calendulacea</i>	.75	1/16 oz., 1.50 1/4 oz.	
<i>cumberlandensis</i>	1.00	1/32 oz., 3.00 1/8 oz.	
<i>furbishii</i>	1.00	1/32 oz., 3.00 1/8 oz.	
<i>indica</i> (<i>macrantha</i>)		1.00	1/16 oz.
<i>japonica</i> (hardy <i>mollis</i>) from specialist's			
collection		1.25	1/16 oz., 3.00 1/4 oz.
<i>japonica</i> , yellow flowered, domestic			
seed	1.00	1/32 oz., 3.00 1/8 oz.	
<i>kaempferi</i> (see under <i>obtusa</i>)			
<i>maxwellii</i> , N. E.		1.00	pkt.
<i>mollis</i> (true <i>mollis</i>)	1.25	1/16 oz., 3.00 1/4 oz.	
<i>mucronata</i> (<i>ledifolia alba</i>) white, N. E.		1.00	pkt.
<i>mucronata amethystina</i>		1.00	pkt.
<i>mucronulata</i> , handpollinated domestic seed,			
1.25	pkt., 2.00	1/16 oz., 6.00 1/4 oz.	
<i>nudiflora</i>		.75	1/16 oz., 1.50 1/4 oz.
<i>obtusa kaempferi</i> , home grown, N. E.		1.00	1/16 oz., 3.50 1/4 oz.

AZALEA (continued)

oz. 1/4 lb. lb.

obtusa kaempferi, tall red flowered		
selection	1.00 pkt., 1.50 1/32 oz.	
obtusa kaempferi, low spreading type, red		
flowers	1.00 pkt., 1.50 1/32 oz.	
pennsylvanica		1.50 pkt.
pontica	1.00 1/16 oz., 1.75 1/4 oz.	
*poukhanensis, N. E.	1.25 1/32 oz., 3.00 1/8 oz.	
prunifolia	1.00 pkt., 1.50 1/32. oz.	
rosea	1.00 1/16 oz., 3.00 1/4 oz.	
schlippenbachi, Korean strain, N. E.	1.00 1/16 oz., 2.00 1/4 oz.	
serrulata	1.00 1/32 oz., 3.00 1/8 oz.	
speciosa	1.00 1/32 oz., 3.00 1/8 oz.	
vaseyi	1.00 1/16 oz., 2.75 1/4 oz.	
viscosa	1.00 1/16 oz., 2.25 1/4 oz.	

(See listing of Hybrid varieties on pages 21 and 22)

BAUHINIA purpurea		1.75	5.00
purpurea alba		2.20	6.00
BERBERIS juliana nana, d.b.	1.00 1/4 oz.	3.50	
thunbergi clean		1.75	4.75
thunbergi atropurpurea, clean		2.00	5.50
BETULA japonica		1.25	3.50
lenta, clean		1.00	2.75
lutea, clean		1.25	3.50
papyrifera, clean, N. E.		1.75	4.50
papyrifera minor, N. E.		1.50	4.25
pendula (alba)		.50	1.25
pendula (alba), clean		.90	2.50
pendula (alba), seed from northern limit, clean		1.10	3.00
populifolia, clean		.85	2.35
BROUSSONETIA papyrifera		1.00	2.75
BUDDLEIA davidi (variabilis)		1.50	4.25
davidi, from new garden forms		2.00	
davidi, white		2.00	
BUTIA capitata (Cocos australis)		1.20	3.25
BUXUS microphylla koreana	1.00 1/4 oz.	3.00	
sempervirens		1.00	2.85
CALLICARPA dichotoma (purpurea)		2.80	8.00
japonica		1.50	2.75
CALLISTEMON viminalis	1.50 1/4 oz.	5.00	
CALLUNA vulgaris, clean	1.00 1/4 oz.	2.00	
CALYCANTHUS floridus		1.00	2.75
occidentalis		2.35	6.50
CAMELLIA japonica, from garden specimens,			
Japanese collection		.90	2.50
japonica, from garden specimens, European			
collection		.90	2.50
sasanqua		1.00	2.75
CAMPsis (Bignonia) grandiflora		1.25	3.50
radicans		1.10	3.00
CARAGANA arborescens		.70	2.00
boisi	.75 1/4 oz.	2.25	
CARPINUS betulus, clean		.50	1.25
caroliniana, clean		1.50	4.25
tschonoski		2.25	6.25

	oz.	1/4 lb.	lb.
CARYA illinoensis (Pecan) .....			.90
laciniosa per bushel (50 lbs.)	21.00		
ovata per bushel (50 lbs.)	20.00		
CARYOPTERIS clandonensis , clean	1.00 1/8 oz.		
CASSIA artemisioides	2.75		
floribunda	2.75		
tomentosa	2.10		
CATALPA bignonioides .....		.50	1.20
ovata .....		.75	2.00
speciosa		1.20	3.25
CEANOTHUS americanus .....	.80	2.20	6.00
arboreus	2.00		
arboreus hybrids	2.00		
integerimus	2.50		
leucodermis (divaricatus) var. eglandulosus	2.50		
megacarpus	2.50		
palmeri	2.50		
purpureus	2.50		
spinulosus	2.00		
thyrsiflorus	2.00		
tomentosus olivaceus	2.50		
verrucosus	2.50		
CEDRUS atlantica		1.30	3.75
atlantica argentea		1.40	4.00
atlantica glauca		1.70	4.75
deodara		1.30	3.75
libani		1.50	4.25
CELASTRUS orbiculatus , clean		1.20	3.25
scandens, clean		2.20	6.00
CELTIS mississippiensis (laevigata), d.b. .....		.90	2.50
occidentalis, d.b. .....		.70	2.00
CEPHALANTHUS occidentalis , clean .....		.75	2.10
CEPHALOTAXUS drupacea .....		.65	1.75
fortuni .....		.65	1.85
CERATONIA siliqua .....		.45	1.25
CERCIDIPHYLLUM japonicum	1.50	2.80	8.00
CERCIS canadensis , Northern seed		1.10	3.00
canadensis, Southern Seed		1.00	2.75
chinensis		1.65	4.50
occidentalis		1.40	4.00
siliquastrum .....		.50	.120
siliquastrum alba .....		.90	2.50
CHAENOMELES japonica (maulei) (dwarf type)		1.50	4.25
lagenaria (Cydonia jap.) bush type, domestic			
seed, largely from red plants, N. E.		1.70	4.75
CHAMAECYPARIS lawsoniana .....		.90	2.50
lawsoniana allumi, blue, clumnar shaped form		1.40	4.00
lawsoniana argentea		1.30	3.75
lawsoniana aurea		1.25	3.50
lawsoniana pendula glauca		1.30	3.75
lawsoniana pyramidalis		1.10	3.00
lawsoniana Triumph de Boskoop, choice blue form		1.30	3.75
obtusa		1.15	3.25
pisifera		1.35	3.75
pisifera filifera		1.65	4.50
thyoides glauca	1.00 1/4 oz.	2.50	

	oz.	1/4 lb.	lb.
CHAMAEROPS humilis .....	.50	1.25	
CHILOPSIS linearis	2.70	7.50	
CHIMONANTHUS (Meratia) praecox	1.00	2.75	
CHIONANTHUS virginicus, clean	1.65	4.50	
CINNAMOMUM camphora .....	.65	1.80	
glanduliferum	1.00	2.75	
CLADRASTIS lutea	1.65	4.50	
platycarpa	1.50	4.25	
CLEMATIS paniculata, imported	1.65	4.50	
patens, N. E.	1.50		
viticella .....	.90	2.50	
CLERODENDRON trichotomum	1.30	3.75	
CLETHRA acuminata, clean	2.00	1/4 oz.	
alnifolia, N. E., clean	1.50	1/4 oz.	4.00
barbinervis, clean	1.50	1/4 oz.	
fargesi, clean	1.00	pkt.	
COCCULUS carolinus .....	.70	2.00	
COLUTEA arborescens .....	.65	1.75	
CORDYLINE (Dracaena) indivisa	1.00	2.85	
CORNUS alba	1.65	4.50	
alternifolia, d.b.	1.10	3.00	
amomum, clean	1.25	3.50	
canadensis, d.b. .....	.85	1.85	5.50
capitata .....	.80	2.25	
controversa	1.30	3.75	
florida, Southern, clean	1.25	3.50	
florida, climatic Zone 6, clean	1.30	3.75	
florida, N. E., Zone 5, clean	1.40	4.00	
florida, from Redflowering Dogwood, d.b.	1.40	4.00	
kousa, clean	1.40	4.00	
kousa chinensis, N. E., clean	1.50	4.25	
mas, clean .....	.60	1.50	
nuttallii, d.b.	1.25	3.50	
officinalis, clean	1.30	3.75	
racemosa (paniculata), clean	1.10	3.00	
racemosa (paniculata) d.b. .....	.60	1.50	
sanguinea, clean .....	.50	1.25	
stolonifera, d.b. .....	.65	1.75	
CORONILLA emerus .....	.60	1.50	
CORYLOPSIS sinensis, N. E.	1.00	1/4 oz.	2.50
CORYLUS americana .....	.90	2.50	
avellana .....	.50	1.25	
COTINUS coggygria (Rhus cotinus) .....	.90	2.50	
COTONEASTER adpressa praecox, d.b.	1.40	4.00	11.00
apiculata, d.b.	2.00		
bullata floribunda, d.b.	1.00	2.50	
dielsiana, clean		2.20	6.00
dielsiana elegans, d.b.	1.50		
*dielsiana major, clean	2.00	5.75	
divaricata, clean	1.70	4.75	
foveolata, clean, N. E. better habit and foliage, more disease resistant than either Cot. acutifolia or lucida	2.20	6.00	
francheti, clean .....	.. 1.65	4.50	
horizontalis, clean	1.75	5.00	
horizontalis perpusilla, d.b.	1.25		

COTONEASTER (continued)

	oz.	1/4 lb.	lb.
<i>horizontalis prostrata</i> , choice subspecies of procumbent habit, good for rock gardens, d.b.	2.00	2.20	6.00
* <i>multiflora</i> , d.b.		2.00	5.75
* <i>multiflora calocarpa</i> , d.b.		1.65	4.50
<i>pannosa</i> , clean		1.00	2.50
<i>racemiflora desfontainii</i> (<i>typica</i>), d.b.	1.25		
<i>racemiflora nummularia</i> (<i>Meyeri</i>), d.b.	1.00	2.50	
<i>racemiflora songarica</i> , d.b.	2.20		6.00
<i>racemiflora veitchii</i> , clean	1.50	2.20	
<i>rosea</i> , d.b.		1.75	5.00
<i>salicifolia</i> , clean	1.50	2.20	6.00
<i>simonsii</i> , clean		2.00	
<i>thymifolia</i> , d.b.		1.50	
<i>zabelii</i> , d.b.		2.00	
CRATAEGUS crus-galli , clean ....		.90	2.50
<i>mollis</i> , clean		1.10	3.00
<i>monogyna</i> (<i>oxyacantha mon.</i>) ....		.50	1.25
<i>oxyacantha</i> ....		.60	1.50
<i>punctata</i> , clean		1.40	4.00
CRYPTOMERIA japonica , European seed		1.20	3.25
<i>japonica</i> , Oriental seed		1.40	2.75
<i>japonica lobbi</i>		1.40	4.00
CUNNINGHAMIA lanceolata		1.50	4.25
CUPRESSUS arizonica (<i>glabra</i> or <i>bonita</i>) domestic seed			
from pyramid specimens		1.75	4.75
<i>arizonica</i> , imported seed, from plants in cultivation		1.25	3.50
<i>forbesii</i>	2.75		
<i>funebris</i>		1.10	3.00
<i>goveniana</i>		1.10	3.00
<i>lusitanica</i> (<i>glaucia</i>) ....		.90	2.50
<i>lusitanica benthami</i>		1.00	2.75
<i>macrocarpa</i>		1.65	4.50
<i>macrocarpa</i> , from garden specimens		1.75	5.00
<i>macrocarpa</i> , from northern sources, British Isles ....	.85	2.20	6.00
<i>macrocarpa glauca</i> ....	.85	2.20	6.00
<i>sempervirens</i> ....		.60	1.50
<i>sempervirens horizontalis</i> ....		.60	1.40
<i>sempervirens stricta</i> ....		.60	1.50
<i>stephensonii</i> (<i>Cuyamaca Cypress</i>), choice new California mountain Cypress from high elevation	1.25 1/4 oz.	3.50	
<i>torulosa</i>		1.00	2.75
<i>torulosa majestica</i>		1.20	3.25
CYCAS revoluta	100 seeds	4.00	
CYDONIA (see also <i>Chaenomeles</i>) <i>oblonga</i> (<i>vulgaris</i>)		1.85	5.50
CYTISUS hirsutus		1.00	2.50
<i>multiflorus</i>		1.00	2.50
<i>multiflorus</i> , White Gem		1.50	
<i>nigricans</i> ....		.85	2.35
<i>purpureus</i>		1.00	2.50
<i>scoparius</i> ....		.60	1.50
<i>scoparius andreanus</i> , yellow with crimson wing		1.50	4.25
<i>scoparius andreanus hybrids</i> (<i>dallimorei</i>), vari-colored flowers in pastel shades of yellow, rose and white	1.00 1/4 oz.	2.85	
<i>sessilifolius</i>		2.35	6.50

	oz.	1/4 lb.	lb.
DAPHNE laureola			
mezereum		1.40	4.00
DEUTZIA scabra (crenata)		1.25	3.50
DIOSYPROS kaki		1.50	4.25
lotus		.65	1.75
virginiana		.50	1.25
virginiana, northern		.60	1.50
virginiana, from trees in cultivation		.70	2.00
DISANTHUS cercidifolius	1.00	2.80	8.00
DRACAENA draco , clean	250 seeds	2.50—1000 seeds	7.50
ELEAGNUS angustifolia , clean		.50	1.25
commutata (argentea), clean		.80	2.25
umbellata, clean		1.35	3.75
ELSHOLTZIA stauntoni	1.00	1 1/8 oz.	
ENKIANTHUS campanulatus , N. E.	1.25	1/4 oz.	
cernuus rubens, N. E.	1.00	1/32 oz.	
ENTEROLOBIUM cyclocarpum	1,000 seeds	5.00	
ERICA carnea , clean	1.00	1/4 oz.	2.50
ERYTHRINA corallodendrum			
crista-galli	250 seeds	2.50—1,000 seeds	6.50
crista-galli	250 seeds	2.25—1,000 seeds	6.00
EUCALYPTUS botryoides		2.50	7.00
camaldulensis (rostrata)		1.30	3.75
globulus, clean		2.35	6.50
EUONYMUS alatus , clean		1.25	3.50
atropurpureus, d.b.		1.10	3.00
europaeus, clean		.70	2.00
fortunei (radicans) clean		1.30	3.75
japonicus, clean		1.10	3.00
*sachalinensis (planipes), N. E., clean	1.00	2.50	
yedoensis, d.b., N. E.		2.00	
EXOCHORDA grandiflora		1.40	4.00
FAGUS sylvatica , Central Europe			1.10
sylvatica, North Europe			1.25
sylvatica atropurpurea, North Europe			1.85
FATSIA japonica	1000 seeds	2.50	
FEIJOA sellowiana	1000 seeds	3.50	
FIRMIANA simplex		.80	2.25
FRANKLINIA alatamaha	100 seeds	1.50, 1000 seeds	9.00
FRAZINUS americana , true type			
excelsior			1.65
mandshurica			1.00
nigra		1.10	3.00
ornus		.80	2.25
pennsylvanica (pubescens), N. E.			1.00
pennsylvanica lanceolata		.60	1.50
pennsylvanica lanceolata			1.00
FREMONTIA californica	1.25	1/4 oz.	3.50
mexicana	1.25	1/4 oz.	3.00
GARDENIA jasminoides (florida)		2.20	6.00
GAULTHERIA procumbens , d.b.		1.75	5.00
GENISTA aethnensis		.50	1.25
canariensis		1.00	2.50
fragrans		1.10	3.00
germanica		1.00	
monosperma			.90
			2.50

	oz.	1/4 lb.	lb.
GENISTA (continued)			
<p> <i>pilosa</i></p>	1.00		
<i>radiata</i>	1.00		
<i>tinctoria</i>	1.65	4.50	
GINKGO <i>biloba</i> .....	.70	2.00	
GLEDTSSIA <i>japonica</i>	1.25	3.50	
<i>sinensis</i>	1.00	2.75	
<i>triacanthos</i> .....	.50	1.10	
<i>triacanthos inermis</i> .....	.60	1.50	
GREVILLEA <i>robusta</i>	2.00	6.00	20.00
GYMNOCLADUS <i>dioicus</i>			1.00
HALESIA <i>carolina</i> (tetrapetala)			
<i>diptera</i> .....	.90	2.50	
<i>monticola</i>	1.10	3.00	
HAMAMELIS <i>japonica</i>			
<i>japonica flavo-purpurascens</i>	1.65	4.50	
<i>mollis</i> , N. E.	2.00		
<i>vernalis</i>	1.50	4.25	
<i>vernalis tomentella</i>	2.00	5.75	
<i>virginiana</i>	1.00	2.75	7.50
HIBISCUS <i>syriacus</i>			
<i>syriacus</i> , white flowered .....	.60	1.50	
HIPPOPHAE <i>rhamnoides</i> .....			.65 1.75
HOVENIA <i>dulcis</i> .....			.80 2.25
HYDRANGEA <i>petiolaris</i> , true to name, N. E.	1.00	1/32 oz.	
HYPERICUM <i>frondosum</i> (aureum)	1.00	1/8 oz.	
<i>kalmianum</i>	1.00	1/4 oz.	3.00
IDESIA <i>polycarpa</i>			2.20 6.00
ILEX <i>aquifolium</i> , clean .....			.65 1.75
<i>aquifolium</i> , from garden varieties			1.20 3.25
<i>aquifolium</i> , from domestic orchards, clean			1.40 4.00
* <i>cornuta</i> , domestic, cleaned and floated			2.20 6.00
<i>crenata convexa</i> (bullata) N. E., d.b.	1.00		
<i>glabra</i> , d.b. .....			.65 1.75
<i>latifolia</i>			2.00 5.75
<i>opaca</i> , clean			2.75 4.75
<i>opaca</i> , clean, northern sources, Zone 6			2.20 6.00
<i>pedunculosa</i> , clean			1.80 5.25
<i>serrata</i> (sieboldii), clean			1.85 5.50
<i>verticillata</i> , clean, N. E.			2.80 8.00
INDIGOFERA <i>dosua</i>			1.25
JUGLANS <i>cinerea</i> , N. E.	per bushel (28 lbs.)	7.50	
<i>nigra</i>	per bushel (40 lbs.)	11.00	
<i>sieboldiana</i> .....			.50 1.25
<i>sieboldiana cordiformis</i> .....			.50 1.25
JUNIPERUS <i>californica</i> , clean			3.50 10.00
<i>chinensis</i> , clean			1.30 3.75
<i>chinensis sargentii</i> , clean			2.20 6.00
<i>communis depressa</i> , clean			2.75 7.50
<i>communis</i> , upright columnar type, clean			2.60 2.00
<i>conferta</i> , (litoralis), clean			2.50 7.00
* <i>pachyphloea</i> , clean			2.35 6.50
<i>procumbens</i> , clean			2.35 6.50
<i>rigida</i> , clean			1.65 4.50
<i>scopulorum</i> , clean, northern			1.65 4.00

	oz.	1/4 lb.	lb.
JUNIPERUS (continued)			
<i>virginiana</i> , Northern form, from plants in cultivation	1.50	4.25	
<i>virginiana</i> , Platte River type, clean	1.70	4.75	
<i>virginiana glauca</i> , clean	1.75	5.00	
KALMIA latifolia , New England, from garden			
specimens	1.00	1/4 oz.	2.50
<i>latifolia</i> , from Red flowered selections	1.25	pkt., 2.00	1/32 oz.
<i>latifolia fuscata</i> , brown-eyed Mountain Laurel, a form distinguished by its flower variation and compact habit.	1.25	pkt., 2.00	1/32 oz.
KALOPanax pictus (<i>Acanthopanax ricinifolius</i>)	2.00	6.00	
KERRIA japonica	1.50	4.25	
KOELREUTERIA paniculata	.65	1.75	
KOLKWITZIA amabilis , clean, viable seed by cross polin- ation in group plantings, N. E.	2.00	5.50	15.00
LABURNUM alpinum			
<i>anagyroides</i> (<i>vulgare</i>)	.90	2.50	
<i>watereri</i> (<i>vossi</i>), (<i>anagyr. x alpinum</i>)	1.00	1/4 oz.	3.00
LAGERSTROEMIA indica , clean	1.65	4.50	
LARIX decidua (<i>europaea</i>) Eastern Alps, elev. 3,000 - 4,200 ft.	2.75	7.50	
<i>decidua</i> , sudetica type, foothills of Eastern Alps, 1,200 - 2,100 ft. OR	2.00	5.60	16.00
<i>decidua</i> , large seeded franco-swiss strain from Western High Alps, 6,000 ft., of late starting and early term- inating growth, cold and wind resistant, straight, tall, rapid grower, a good timber tree, a fine orna- mental. OR.	2.35	3.75	
<i>leptolepis</i>	2.50	7.00	
LAURUS nobilis , d.b.			1.00
LESPEDEZA bicolor , clean, domestic seed	.90	2.50	
<i>buergeri</i>	1.25	3.50	
<i>thunbergi</i> (<i>formosa</i>)	1.20	3.25	
LEUCOTHOE catesbaei	1.00	1/4 oz., 2.50	oz.
LIBOCEDRUS recurrens	.90	2.50	
LIGustrum amurense "North Privet", d.b.	.70	2.00	
<i>japonicum</i> , d.b.	.65	1.75	
<i>lucidum</i> , d.b.	1.00	2.75	
<i>obtusifolium</i> (<i>ibota</i> of trade), d.b.	.90	2.50	
<i>sinense</i> ("South" Privet), d.b.	.50	1.10	
<i>vulgare</i> , clean	.70	2.00	
LIQUIDAMBAR styraciflua	1.00	2.35	6.50
LIRIODENDRON tulipifera	.70	2.00	
LONICERA caprifolium , clean	1.75	5.00	
<i>etrusca</i> , clean	1.70	4.75	
<i>henryi</i> , d.b., N. E.	1.75	2.20	6.00
<i>japonica</i> , clean			
<i>korolkowi zabeli</i> , fine red flowered form, d.b.	1.50	3.00	
<i>maackii podocarpa</i> , d.b., N. E.	1.00	2.20	6.00
<i>morrowii</i> d.b., N. E.			
<i>morrowii</i> , yellow fruited, d.b.			
<i>ruprechtiana</i> , d.b., N. E.			
<i>tatarica</i> , clean			
<i>tatarica wheeleri</i> (red), d.b., N. E.	1.00	2.00	
<i>xylosteum</i> , clean	1.80	5.25	

	oz.	1/4 lb.	lb.
MAACKA amurensis		1.30	3.75
MACLURA pomifera		.65	1.75
MAGNOLIA denudata (conspicua), d.b.		1.40	4.00
grandiflora, clean		1.10	3.00
kobus, clean		1.50	4.25
liliiflora, d.b.		1.35	3.75
soulangeana, d.b.		1.40	4.00
virginiana (glauca), clean		1.35	5.50
MAHONIA aquifolium, clean		2.40	6.50
MALUS baccata, clean	2.00	5.60	16.00
baccata, dried pomes		1.00	2.75
baccata mandshurica, dried pomes		1.10	3.00
coronaria, clean		1.30	3.60
floribunda, clean		2.00	5.00
ioensis, clean		1.35	3.75
*sargentii, dried pomes, N. E., Free blooming, dwarf		1.75	5.00
ornamental Crab, true from seed		1.25	3.10
sieboldi, clean		2.25	6.50
sieboldi arborescens, clean, N. E. tree of moderate size,		1.50	4.50
faster growing than sieboldi, handsome in flower		2.25	6.50
and with prominent display of fruit		1.50	4.50
sikkimensis, dried pomes		2.25	6.45
theifera (hupehensis), clean, handsome small tree,		1.25	3.10
very free blooming, true from seed		.90	2.50
zumi, clean		2.25	6.00
zumi calocarpa, dried pomes		1.25	3.25
MELALEUCA leucadendron		.70	2.00
MELIA azedarach		.70	2.00
MESPILUS germanica, clean		.90	2.50
MORUS alba, clean		1.00	2.50
alba tatarica, clean		1.00	2.50
new midwestern species, tentatively named americana		1.00	2.50
nigra, clean		1.10	3.00
MYRICA pennsylvanica (carolinensis) N. E.		.90	2.50
MYRTUS communis, clean		2.20	6.00
NANDINA domestica, clean		1.25	3.50
domestica, white berries, clean		1.50	4.25
NYSSA sylvatica, clean		1.40	4.00
OLEA europaea, seed from Orchard varieties		.60	1.50
ORIXA japonica		2.20	6.00
OSMANTHUS ilicifolius (aquifolium), domestic seed		2.20	6.00
OSTRYA carpinifolia, clean		1.35	3.75
virginiana, clean		2.20	6.00
OXYDENDRUM arboreum, clean	.75 1/4 oz.	1.25	
PAEONIA suffruticosa (arborea or moutan), from		1.40	4.00
choice domestic collection		1.25	3.25
PARKINSONIA aculeata		.65	1.75
PARTHENOCISSUS (Ampelopsis) quinquefolia, clean		.80	2.25
tricuspidata (veitchii), clean		1.30	3.60
PASSIFLORA coerulea		1.75	4.50
incarnata		1.00	2.50
PAULOWNIA tomentosa		.65	1.75
PHASEOLEUS caracalla	100 seeds 1.00; 1,000 seeds 6.00		
PHELLODENDRON amurense, clean		1.40	4.00

	oz.	1/4 lb.	lb.
<i>PHILADELPHUS coronarius</i> , clean	1.35	3.75	
<i>grandiflorus</i> , clean	1.25	3.50	
<i>PHOENIX canariensis</i> .....	.50	1.20	
<i>dactylifera</i> .....	.90	2.50	
<i>PHOTINIA villosa</i> , clean	1.65	4.50	
<i>PHYSOCARPUS opulifolius</i> (<i>Spiraea opul.</i>), Ninebark	2.20	6.00	
<i>PICEA abies</i> , <i>Boehmerwald</i> , fast growing hill type, 1600-2400 ft., the best Norway Spruce timber stands, the tallest and largest trees are found in Boehmerwald region of Central Europe. OR.	2.00	5.75	
<i>abies</i> , Northern Foothills of Alps Mts. Central Europe, 1,500-2,700 ft., from a narrowly defined area with a rain climate due to oceanic influences. OR.	1.80	5.25	
<i>abies</i> , Southeastern foothills of Alps Mts. Central Europe, a rain shadow area with dry, warm sum- mers 1,500-2,400 ft. (from lower levels available on request.) OR.	2.35	6.50	
<i>abies</i> , seed from Central Mountains of Germany, Harz and adjacent mts., 1,200-1,800 ft. strain preferred by growers of stock for landscaping. OR.	2.00	5.75	
<i>abies</i> , from alpine origins, Central Alps Mt., Europe, 3,000-4,500 ft., slow growing, recommended for high elevations and container grown stock. OR.	2.35	6.50	
<i>abies</i> , Central European origins	1.30	3.75	
<i>abies</i> , Northwestern Europe, Ardennes Mts. and Mts. of France, fast growing strains, recommended for seedling growers. OR.	2.20	6.00	
<i>abies</i> , Lowland strain, South Sweden, near sea-level, the hardiest and most wind-burn resistant strain of the Central European race of Norway Spruce (not the slow growing arctic type), the best strain for the Northern states and Canada. OR.	1.85	5.50	
<i>abies</i> , subarctic type, from Central Sweden or Finland. Well suited, because of its moderate rate of growth, for landscaping and container grown Christmas trees, also for planting under adverse northern conditions. OR.	1.80	5.25	
<i>abies</i> , domestic Lake States. OR.	1.25	3.50	10.00
<i>engelmanni</i>	1.25	3.50	10.00
<i>glauca</i> , Lake States	2.00	5.50	15.00
<i>glauca</i> (<i>canadensis</i>) from planted stands near sea-level, Northern Europe. For seed quality and excellence of stock this strain has found many friends, since we introduced it nearly thirty years ago. OR.	1.25	3.50	
<i>glauca censata</i> (Black Hills)	2.00	5.50	15.00
<i>pungens</i>	2.00	5.50	15.00
<i>pungens glauca</i>	2.35	6.50	17.50
<i>sitchensis</i>	2.00	5.00	14.00
<i>PIERIS floribunda</i> , N. E.	1.50	1/4 oz.	4.50
<i>japonica</i> , N. E.	1.00	1/4 oz.	2.50
<i>PINUS aristata</i>	1.35	3.20	8.50
<i>banksiana</i>	1.00	2.70	7.50
<i>canariensis</i>		1.75	5.00
<i>caribaea</i>		2.20	6.00
<i>cembra</i> .....		.60	1.50

PINUS (continued)	oz.	1/4 lb.	lb.
<i>cembroides edulis</i>		1.30	3.75
<i>contorta</i> , true Shore Pine Brit. Col.	1.75	4.50	12.25
<i>contorta latifolia</i> (<i>murrayana</i>)	1.40	4.00	11.00
<i>coulteri</i>	1.25	3.35	9.00
<i>densiflora</i>		1.20	3.25
<i>echinata</i>	2.00	5.20	14.00
<i>flexilis</i>		1.40	4.00
<i>griffithi</i> (<i>excelsa</i>)		1.20	3.25
<i>halepensis</i> .....		.60	1.50
<i>halepensis brutia</i>		1.25	3.50
<i>jeffreyi</i>		2.20	6.00
<i>koraiensis</i>		1.20	3.25
<i>lambertiana</i>		1.75	5.00
<i>monticola</i>	1.00	2.70	7.50
<i>mugo</i> (<i>montana</i>), Lowland seed		1.25	3.50
<i>mugo mughus</i> , Tyrolean Alps, dwarf type. OR.	1.00	2.35	6.50
<i>mugo pumilio</i> , dwarfest of <i>mugo</i> group from Eastern Alps (limestone). OR.	1.25	3.35	9.00
<i>mugo rostrata</i> (<i>uncinata</i>) European Alps	2.80	8.00	
<i>nigra</i> , Hill strain, elev. 900-1,500 ft. from the heart of Austrian Pine country in Austria. OR.		1.20	3.25
Same, elevation 1,500 - 2,400 ft. OR.		1.25	3.50
<i>nigra</i> , Central European sources .....		.90	2.50
<i>palustris</i>		1.10	3.00
<i>parviflora</i> (<i>pentaphylla</i>)		1.40	4.00
<i>patula</i>		1.35	3.75
<i>pinaster</i> (<i>maritima</i>) .....		.60	1.25
<i>pinea</i> .....		.60	1.50
<i>ponderosa</i> , Colorado		1.65	4.50
<i>ponderosa</i> , Idaho		1.80	5.25
<i>ponderosa scopulorum</i>		1.40	4.00
<i>pumila</i>		2.20	6.00
<i>radiata</i> (<i>insignis</i>)		1.20	3.25
<i>resinosa</i> , Lake States. OR.	2.00	5.00	14.00
<i>rigida</i> , New York State		2.60	7.25
<i>sabiniana</i> .....		.80	2.25
<i>strobos</i> , Lake States. OR.		3.35	9.00
<i>sylvestris</i> , Scotch Pine, for diversity of requirements a choice of strains is offered. See Page 26. <i>Pine Lore</i> .			

A. Strains from the plains of Northern Europe.

Seed from Belgium, Campine Strain. OR.	1.85	5.50
Seed from North German Low Plain. OR.	3.50	10.00
Seed of West Baltic origin, Sweden. OR.	2.00	5.60

B. Mountain Strains.

Seed from Highland forests in France. OR.	1.85	5.50
Seed from Vosges Mts. France. OR.	5.50	14.75
Seed from Austrian Forests, hill strain. OR.	2.20	6.00
Seed from Spain:		
Burgos Province, North Spain, elevation 3,000 - 4,800 ft.	2.80	8.00
Guadalajara, Central Spain, elevation 4,200 - 5,100 ft.	3.00	8.25
Guadarrama Mts. North Central Spain, elevation 3,500 - 4,000 ft.	3.50	10.00

PINUS *sylvestris* (continued)

oz. 1/4 lb. lb.

C. Insular isolation has set apart as distinctive for practical purposes the Scotch Pine races indigenous to England. Favorable reports regard them as suitable both for timber and Christmas tree production.

Seed from government forests in East Anglia, near sea level, on inquiry. OR.

Seed of the true Scots Pine of Scotland, elevation 100-650 ft. OR.

taeda

thunbergi, domestic, from shore plantings, N. E.

thunbergi, Japan

torreyana

PITTOSPORUM *tobira*, clean

PLATANUS *occidentalis*

orientalis, clean

PLUMBAGO *capensis* 1,000 seeds 4.00

PODOCARPUS *macrophylla*

nagi

POINCIANA *gilliesi*

 (*Delonix*) *regia*

PONCIRUS (*Citrus*) *trifoliata*

PRUNUS—see also under Fruit Seeds.

amygdalo-persica, Hardy Almond

besseyi, clean

campanulata

caroliniana

incisa, clean, imported

japonica

laurocerasus (*officinalis*), clean

maritima, clean, N. E.

mume, clean

padus, clean, imported

salicina (*triflora*)

**sargentii* (*serrulata sachalinensis*) clean

serotina, clean

serotina, d.b., N. E.

serrulata, clean

subhirtella, clean

subhirtella pendula, clean

tomentosa, domestic, clean

tomentosa, imported

virginiana, clean

virginiana melanocarpa, clean

yedoensis

PSEUDOLARIX *amabilis* (*kaempferi*)

PSEUDOTSUGA *taxifolia caesia*, Interior strain, Idaho,

 Montana, Eastern Washington

taxifolia glauca, Colorado strain

PTELEA *trifoliata*

PUERARIA *thunbergiana*

PYRACANTHA *coccinea*, clean

coccinea lalandi, clean

coccinea lalandi, d.b. N. E. hardy strain, plants

 wintering at Boston

1.65 4.60 12.75

2.50 7.00

1.00 2.75

1.25 3.50

1.30 3.60 9.00

1.10 3.00

.50 1.25

.50 1.25

1.30 3.75

1.20 3.25

1.20 3.25

2.20 6.00

.50 1.25

.70 2.00

1.25 3.50

1.25 3.50

.60 1.50

1.50 4.25

1.25 3.50

.70 2.00

1.35 3.75

.50 1.25

1.40 4.00

.45 95

1.25 3.50

.60 1.50

.50 1.10

.90 2.50

1.00 2.75

1.20 3.25

1.00 .90 2.50

.70 2.00

.80 2.25

.90 2.50

1.25 3.50

2.00 4.65 12.00

1.25 6.00 16.50

.70 2.00

.70 2.00

.90 2.50

1.10 3.00

1.75 5.00

PYRUS—see Fruit Seeds, Page 19

QUERCUS palustris—not less than 5 lbs. sold70

QUERCUS, import items, orders for not less than 10 lbs.
accepted prior to December 1st.

ilex		.95
robur		.90
suber		1.25
RHAMNUS cathartica , clean		.90 2.50
davurica, clean		2.20 6.00
frangula, N. E., d.b.		1.10 3.00
purshiana, clean		1.40 4.00

RHODODENDRON—Items marked (*) are supplied to us
in selfed (hand-pollinated) seeds of northern origin
by noted expert. Packets as offered contain several
hundred seeds.

*adenogynum	1.00	pkt.	
arboreum	.75	1/4 oz.	
augustini	1.00	pkt.	
auriculatum	1.00	pkt.	
barbatum	1.00	pkt.	
*callimorphum	1.00	pkt.	
calophytum	1.00	pkt.	
*caloxanthum	1.00	pkt.	
canadense (Rhodora), N. E.	1.00	1/16 oz. .75	pkt.
cantabile		1.00	pkt.
carolinianum, N. E.	.75	pkt., 2.00 1/8 oz.	
carolinianum, blush		.75	pkt.
carolinianum, white		.75	pkt.
catawbiense	1.00	1/16 oz., 3.00 1/4 oz.	
catawbiense compactum, N. E.	.75	pkt., 1.00 1/16 oz.	
caucasicum		.75	pkt.
cerasinum	1.00	pkt.	
charitopes	1.00	pkt.	
*chartophyllum	1.00	pkt.	
cinnabarinum	1.00	pkt.	
*concinnum	1.00	pkt.	
croceum	1.00	pkt.	
*decorum	1.00	pkt.	
diaprepes	1.00	pkt.	
discolor	1.00	pkt., 1.50 1/32 oz.	
falconeri		1.00	pkt.
*fargesi		1.00	pkt.
*ferrugineum	.50	pkt., 1.00 1/8 oz.	
*fictolacteum		1.00	pkt.
fortunei Lu Shan, a hardy strain F 1 generation from China seed, hand-pollinated, N. E.		1.25 1/32 oz., 3.00 1/8 oz.	
fortunei, N. E., from trade specimens		1.25 1/32 oz., 3.00 1/8 oz.	
fulvum		1.00	pkt.
griersonianum		1.00	pkt.
griffithianum	.85	pkt., 2.00 1/8 oz.	
haematodes		1.00	pkt.
hippophaeoides		1.00	pkt.
hirsutum	.50	pkt., 1.00 1/8 oz.	

RHODODENDRON (continued)

oz. 1/4 lb. lb.

hodgsoni	1.00	pkt.
insigne	1.00	pkt.
intricatum	1.00	pkt.
keysi	1.00	pkt.
leucaspis	1.00	pkt.
macabeanum	1.00	pkt.
macrophyllum	1.00 1/16 oz.,	3.00 1/4 oz.
maximum, N. E.	1.00 1/4 oz.	3.50
*neriiflorum	1.00	pkt.
orbiculare	1.00	pkt.
ponticum, Northern Europe	1.25 1/4 oz.	
ponticum, seed from hardy selections, N. E., with their airy grace and daintiness of bloom, true ponticum plants have a charm all their own.	1.00 1/32 oz.	
praevernum, N. E.	1.00	pkt.
puralebum	1.00	pkt.
racemosum	1.00	pkt.
smirnowi	1.00	pkt.
*souliei	1.00	pkt.
*sutchuenense	1.00	pkt.
*thomsoni	1.00	pkt.
*vernicosum	1.00	pkt.
*wardi	1.00	pkt.
williamsianum	1.00	pkt.
*yunnanense	1.00	pkt.

RHODODENDRON HYBRIDS: see listing on pages 23-25

RHODOTYPOS scandens (kerrioides)	1.40	4.00
RHUS canadensis (aromatica), clean	1.50	4.25
coppalina, clean	1.00	2.75
cotinus, see <i>Cotinus coggygria</i>		
glabra, clean	1.00	2.75
trilobata, clean	1.25	3.50
ROBINA hispida fertilis	1.30	3.60 10.00
pseudoacacia, imported seed (the Eastern U. S. strain)	.50	1.25
pseudoacacia, domestic seed, Idaho strain	.70	2.00
ROSA arkansana, clean	2.20	6.00
planda, clean	1.65	4.50
canina, clean	.50	1.10
carolina (humilis) d.h.	1.25	3.50
eglanteria (rubiginosa), clean	1.00	2.75
micrantha, d.h.	1.00	
multiflora, thornless, clean	1.00	3.00
multiflora, thorny, clean	.90	2.50
primula, d.h.	1.00	2.75
rubrifolia, N. E., d.h.	1.50	
rugosa, clean	1.20	3.25
rugosa, deep red selection, N. E., clean	2.00	
rugosa, white, N. E., clean	2.00	
setigera, clean	2.20	6.00
spinosissima, d.h.	1.25	3.50
virginiana (lucida), clean	2.20	6.00
wichuraiana, clean	1.00	2.75
xanthina spontanea, d.h.	1.50	
RUSCUS aculeatus, clean	1.00	2.85

	oz.	1/4 lb.	lb.
SAMBUCUS canadensis , clean		1.10	3.00
<i>nigra</i> , clean		.60	1.50
<i>racemosa</i> , clean		1.20	3.25
SAPINDUS drummondii		.90	2.50
<i>mukorossi</i>		1.00	2.75
SASSAFRAS albidum (varifolium)		1.10	2.75
SCHINUS molle		.65	1.75
<i>terebinthifolius</i>		.90	2.50
SCHIZOLOBIUM parahybum (excelsum), tall (to 100 ft.), fast growing, tropical timber and ornamental tree, large fernlike foliage, masses of flowers in large golden sprays	1.75	4.50	12.00
SCHIZOPHRAGMA hydrangeoides	1.00	2.50	
SCIADOPITYS verticillata		2.40	6.75
SEQUOIA gigantea , from high elevations, 6,500-7,000 ft.	2.50	7.00	20.00
<i>sempervirens</i> , California seed only	1.75	4.50	12.00
SHEPHERDIA argentea , clean		1.85	5.50
SOPHORA japonica		.60	1.40
<i>japonica</i> , seed from pendula form		.65	1.75
<i>secundiflora</i>		1.75	5.00
SORBUS alnifolia , clean		2.20	6.00
<i>americana</i> , d.b.		1.10	3.00
<i>aria</i> , clean		2.20	6.00
<i>aucuparia</i> , imported, clean		1.00	2.50
<i>aucuparia</i> , domestic, d.b., N. E.		.90	2.50
<i>commixta</i> , d.b., N. E.		1.10	3.00
<i>decora</i> , d.b.	1.25	375	
<i>domestica</i> , clean	1.25	3.50	10.00
<i>torminalis</i> , clean	.85	2.35	6.50
SPARTIUM junceum		.60	1.50
STEWARTIA monadelpha , N. E.	1.20	1/4 oz.	3.00
<i>koreana</i> , N. E.	1.20	1/4 oz.	3.00
<i>pseudocamellia</i> , imported		1.50	4.00
<i>serrata</i> , N. E.	1.20	1/4 oz.	3.00
STYRAX japonica		1.00	2.75
<i>obassia</i>		1.35	3.75
SYMPHORICARPUS albus (racemosus)	1.00	2.75	7.50
<i>orbiculatus</i> (vulgaris), d.b.		.90	2.50
SYMPLOCOS paniculata , conspicuous in flower (white) and fruit (bright blue)		1.35	3.75
SYRINGA amurensis <i>japonica</i> , domestic seed, N. E.	170.	4.75	
<i>amurensis</i> <i>japonica</i> , imported		4.50	12.00
<i>henryi</i> (villosa x josikaea)	1.75	4.50	
<i>josikaea</i>	2.00	5.50	15.00
<i>pekinensis</i> , N. E.	2.25	6.00	
<i>villosa</i>	1.75	4.50	12.00
<i>vulgaris</i>		1.10	3.00
<i>vulgaris alba</i>		1.80	5.25
TAMARIX gallica		.70	2.00
TAXODIUM distichum		.60	1.50
<i>distichum</i> , clean		.90	2.50

F. W. SCHUMACHER	Sandwich, Mass.
	oz. 1/4 lb. lb.
TAXUS baccata	
baccata erecta , N. E. . . . .	.90 2.50
baccata stricta (<i>fastigiata</i>)	1.20 3.25
cuspidata , seed from spreading forms, N. E.	1.40 4.00
cuspidata , seed from Japan (the so-called <i>capitata</i> form)	1.30 3.60 10.00
media hicksi , N. E.	1.20 3.25
THEA (<i>Camellia</i>) <i>sinensis</i>	1.30 3.60 10.00
THUJA <i>occidentalis</i> . . . . .	.60 1.50
occidentalis , Northeastern or Lake States	1.00 2.50 7.00
occidentalis pyramidalis , from own specimens	1.15 3.00 8.50
orientalis	2.00 5.00 15.00
orientalis , New England seed . . . . .	.60 1.50
orientalis , from select pyramids, N. E.	1.25 3.50
orientalis aurea	1.85 5.50
orientalis aurea nana N. E.	1.00 3.00
orientalis compacta (<i>nana</i>)	1.50
orientalis elegantissima . . . . .	.90 2.50
orientalis pyramidalis	1.00 3.00
plicata . . . . .	.80 2.25
TILIA <i>americana</i> ,	1.75 4.50 12.00
cordata . . . . .	.60 1.50
japonica . . . . .	.65 1.65
platyphyllus	1.25 3.50
tomentosa . . . . .	.50 1.25
TORREYA <i>californica</i> . . . . .	.50 1.25
TRACHYCARPUS <i>excelsus</i> (<i>fortunei</i>)	1.25 3.50
TSUGA <i>canadensis</i> , Northern crop. OR. . . . .	.60 1.50
caroliniana , N. E.	2.00 5.00 14.00
diversifolia	2.60 7.20 20.00
heterophylla	1.40 4.00 11.00
mertensiana	2.75 7.50 21.00
sieboldii	2.80 8.00 22.50
ULEX <i>europeus</i>	1.40 3.75 10.50
ULMUS <i>americana</i> . . . . .	.90 2.50
glabra (<i>montana</i>), Scotch Elm	1.50
procera (<i>campestris</i>), English Elm . . . . .	.90 2.50
pumila . . . . .	.90 2.50
pumila , wings removed	1.50 4.25
VACCINIUM <i>corymbosum</i> , d.b.	1.10 3.00
corymbosum , d.b., from large fruited cultivated named varieties	2.50
VIBURNUM <i>acerifolium</i> , d.b.	1.00 2.75
burkwoodii	2.00
carlesi , clean, N. E.	2.35 6.70 18.00
carlesi forms, intermediate between <i>carlesi</i> and <i>bitchiuense</i> , d.b.	2.00 5.75
cassinoides , d.b.	1.25 3.50
dentatum , d.b. . . . .	.70 2.00
dentatum , clean	1.40 4.00
dilatatum , clean	1.25 3.50
lantana , clean . . . . .	.80 2.25
lantanaphyllum (<i>lantana</i> x <i>rhytidophyllum</i>)	1.50 3.75
lentago , clean	1.25 3.50
odoratissimum , clean	

F. W. SCHUMACHER	Sandwich, Mass.		
	oz.	1/4 lb.	lb.
VIBURNUM (continued)			
<i>opulus</i> , clean		1.00	2.75
<i>prunifolium</i> , clean		1.50	4.25
<i>rhytidophyllum</i> , d.b.		1.50	4.25
<i>sargentii</i> , clean		1.25	3.50
<i>setigerum</i> (<i>theififerum</i>) <i>aurantiacum</i> , db., N. E., with conspicuous orange-red fruit	1.25	3.50	
<i>sieboldii</i> , clean		1.65	4.50
<i>tinus</i> , clean .....		.90	2.50
<i>tomentosum</i> , clean		1.25	3.50
<i>trilobum</i> (<i>americanum</i>)		1.85	5.50
<i>wrightii</i> , clean imported		1.65	4.50
<i>wrightii</i> , from grafted specimens, N. E., clean	1.00	2.75	
VITEX <i>agnus-castus</i> .....		.70	2.00
VITIS <i>riparia</i> (<i>odorata</i>) the true, hardy Riverbank Grape, with fragrant flowers and sweet, very early ripen- ing fruit, clean.		2.00	
WASHINGTONIA <i>filifera</i> .....		.90	2.50
<i>robusta</i>		1.00	2.75
WEIGELA , garden varieties	1.00		
WISTERIA <i>floribunda</i> , (<i>multijuga</i>) blue		1.10	3.00
<i>frutescens</i>		1.25	3.50
<i>sinensis</i> , blue .....		.80	2.25
<i>sinensis</i> , white		1.20	3.25
YUCCA <i>baccata</i>		1.75	4.00
<i>brevifolia</i>		1.50	3.75
<i>clata</i> .....		.85	1.65
<i>filamentosa</i>		1.10	3.00
<i>glaucia</i>		1.75	4.50
<i>mohavensis</i>		1.35	3.50
<i>whipplei</i> (<i>Hesperoyucca wh.</i>)		1.35	3.50
ZELKOVA <i>serrata</i>		1.35	3.50

FRUIT STOCKS

		1/4 lb.	lb.
APPLE, Common for stock			
Domestic seed from orchard varieties .....	.80	2.25	
French Seed, Cedar Crab, a hybrid race between the common Apple, <i>M. pumila</i> , and the wild Apple, <i>M. sylvestris</i> , from a climate with cool, rainy summers and mild winters .....	.70	2.10	
Seed from East Central Europe, from a climate with dry, warm summers and cold winters .....	.90	2.50	
APRICOT, Common <i>Prunus armeniaca</i>		1.00	
Ansu variety .....	.50	1.25	
CHERRY, Mahaleb, <i>Prunus mahaleb</i>		1.00	
	.90	2.50	
MAZZARD, <i>Prunus avium</i>		1.00	
Wild Mazzard, <i>Prunus avium sylvestris</i> , gum flux resistant silver bark strain from wild trees .....	.70	1.85	
PEAR, Common, domestic (Bartlett)		1.30	3.75
French seed	2.20	6.00	
Sand, <i>Pyrus pyrifolia (serotina)</i>	2.60	7.25	
Ussurian, <i>Pyrus ussuriensis</i>	2.80	8.00	
PLUM, American, <i>Prunus americana</i>		1.00	
Beach, <i>Prunus maritima</i> , N. E.	1.35	3.75	
Myrobalan, <i>Prunus cerasifera</i> .....	.50	1.25	
Myrobalan, seed from Bulgaria, a northern strain .....	.60	1.50	
QUINCE, Common, <i>Cydonia oblonga (vulgaris)</i>		1.85	5.50

SEED SPECIALTIES

	oz.	1/4 lb.	lb.
ASPARAGUS <i>plumosus nanus</i>	oz.	1/4 lb.	lb.
<i>plumosus robustus</i>	1.25	3.75	
<i>sprengeri</i>	1.75	5.25	
	1.00	2.80	8.00
CHRYSANTHEMUM , true fall flowering Chrys.			
Early flowering, double, mixed	1.40	1/4 oz.	4.00
Korean Hybrids .....	.50	pkt., 1.25 1/8 oz.	
DELPHINIUM Gold Medal High Quality Improved Strain.			
American grown from Pacific Giant seed primarily			
..... .50 1/16 oz., 1.25 1/4 oz.			
DICENTRA <i>eximia</i>	1.00	1/4 oz.	2.50
HIBISCUS <i>moscheutos</i> (palustris) N. E., true, native Rose-			
Mallow, pink and rose .....	.50	1.50	4.50
LAVANDULA <i>vera</i> (true Lavender) .....	.55	1/4 oz.	1.50
LUPINUS <i>polyphyllus</i> in separate shades of Blue, Carmine			
Red, Rose, Salmon, White, Yellow or mixed			
Russell Hybrids, from self sown, naturalized N. E.			
plants .....	.90	2.50	
	1.00	3.00	
MIMOSA <i>pudica</i>	1.00	3.00	
PAEONIA <i>albiflora</i>			
<i>peregrina</i> .....	.45	1.00	2.85
PRIMULA <i>auricula</i> .....	.65	1/8 oz.	
<i>japonica</i> .....	.60	1/16 oz.	
<i>veris</i> , Blue Shades .....	.85	1/8 oz.	
Giant Munstead, light shades .....	.65	1/8 oz.	
Large flowered, Border Mixture .....	.65	1/8 oz.	
Gold Laced .....	.50	1/8 oz.	
Golden Yellow .....	.50	1/8 oz.	
Lutea, bright Yellow .....	.50	1/8 oz.	
Ruby Red .....	.50	1/8 oz.	
White .....	.50	1/8 oz.	
Teicher's Colossal strain, giant flowered, wide			
range of colors .....	.75	1/8 oz.	
THERMOPSIS <i>caroliniana</i> .....	.60	1/4 oz.	1.25
GARDEN ASPARAGUS —Waltham Washington, 20 years			3.75
of breeding and selection by Mass., Waltham Field			
Station produced a strain of superior stooling capacity			
and short top growth, resulting in 25% increased pro-			
duction over old strains	2.20	6.00	

AZALEA VARIETIES of HYBRID ORIGIN

If exclusively taken from this section please have your order amount to at least \$3.00. Packets as offered contain several hundred seeds.

AZALEA—Deciduous:

- ***Altaclarensis** (mollis x viscosa) orange yellow,
blotched75 pkt., 2.00 1/16 oz.
- ***Embley Strain**, a parallel development of the Exbury
strain—all colors, shades of yellow, pink, red
1.50 pkt., 2.50 1/32 oz.
- ***Embley Apricot**, apricot pink 1.50 pkt., 2.50 1/32 oz.
- ***Ghent strain**, all colors 1.25 1/16 oz., 3.75 1/4 oz.
- ***Exbury strain**, choice race, a separate development of
Knaphill strain, hand pollinated, all colors
1.50 pkt., 2.50 1/32 oz.

Brazil**Hotspur**

These two best red varieties, crossed with one
another. each 2.00 pkt., 3.00 1/32 oz.

Basilisk, creamy yellow, darker blotch 1.50 pkt.

***Knaphill strain**, result of prolonged breeding inter-
crossing mollis, pontica (ghent), calendulacea and
occidentalis strains
1.50 pkt., 2.50 1/32 oz., 7:50 1/8 oz.

Mollis varieties (mollis x japonica), from choice
collection 1.25 1/16 oz., 3.00 1/4 oz.

Named varieties—All—

1.00 pkt., 1.25 1/32 oz., 3.50 1/8 oz.

***Koster's Brilliant Red**, glossy orange red

***Lemonora**, apricot, center rose

Louisa Hunnewell, seed from seedlings

Louisa Hunnewell x japonica aurea, large flowered
yellow

***Mrs. Oliver Slocock**, rich orange-yellow, suffused
terra-cotta

***Robespierre**, orange-red

Rosea x calendulacea 1.00 pkt., 1.50 1/16 oz.

Rosea x Louisa Hunnewell 1.00 pkt.

Viscosepala (viscosa x mollis) 1.00 pkt.

Items marked * usually not available before

February—March.

AZALEA—Evergreen (New England grown):

Glenn Dale varieties	100 pkt., 2.00 1/32 oz.
Hinodegiri	1.00 1/32 oz.
Hinodegiri x mucronata (<i>ledifolia</i>), vigorous, free blooming Hybrids .....	.75 pkt., 1.50 1/32 oz.
Indica (<i>macrantha</i>), late flowering new varieties of great beauty, pink and rose shades	1.00 pkt., 2.00 1/32 oz.
Mucronata (<i>ledifolia</i>), large flowered varieties	1.00 pkt.
Obtusa <i>arnoldiana</i> (obt. <i>amoena</i> x obt. <i>kaempferi</i>) Cardinalis, deep red	1.00 pkt., 2.00 1/32 oz.
Pink and Rose shades .....	.75 pkt., 1.50 1/32 oz.
Obtusa <i>kaempferi</i> , varieties of <i>kaempferi</i> x <i>malvatica</i> and <i>kaempferi</i> x <i>hinodegiri</i> parentage, hardy and free blooming race in shades of pink and rose, light purple, red and mixed each	100 pkt., 1.25 1/32 oz., 3:50 1/8 oz.
Also White	1.00 pkt.
Obtusa <i>kurume</i> , from named varieties	1.00 pkt.
Sanderi, strain offered is of apparent obtusa <i>kaempferi</i> x <i>indica</i> (<i>macrantha</i>) parentage, very free bloom- ing, resembling and succeeding the "Malvatica" strain.	
Rose and Salmon shades	1.00 pkt., 1.50 1/32 oz.
Scarlet	1.25 pkt.

RHODODENDRON VARIETIES of HYBRID ORIGIN

All packet lots offered contain several hundred seeds.

A. AMERICAN (NEW ENGLAND) GROWN:

Britannia x Fortunei, from a group of selected plants, habit medium, fairly compact, colors, pink and rose shades 1.00 pkt., 2.75 $\frac{1}{8}$ oz.

Catawbiense varieties

Seed from album elegans selections, tall and fast growing, quite true from seeds in shades of white and blush 1.00 1/32 oz., 3.00 $\frac{1}{8}$ oz.
Seed from "America" red flowered clonal form 1.00 pkt., 1.50 1/32 oz.

'America' hand pollinated with *fortunei* 1.00 pkt., 2.50 1/32 oz.

Pink and rose shades 1.00 1/16 oz., 3.00 $\frac{1}{4}$ oz.

Seed from red flowered plants

1.25 1/16 oz., 3.75 $\frac{1}{4}$ oz.

Mixed seeds 1.00 1/16 oz., 2.75 $\frac{1}{4}$ oz.

Catawbiense x Maximum (Wellesleyanum) 1.25 1/16 oz.

Degronianum x Praevernum, hand pollinated 1.25 pkt.

Discolor varieties 1.00 pkt.

Fortunei x Haematodes, F 1 generation from

Dexter plants 1.50 pkt.

Fortunei x Hardy varieties, free blooming selections, low compact habit 1.00 pkt.

Fortunei x Hardy varieties, tall rose flowered selection of extreme hardiness, being pollen sterile. Seed produced is the result of hand pollination with red flowered hybrids. 1.00 pkt., 2.50 1/32 oz.

Fortunei x Hardy varieties, all types

100 pkt., 2.00 1/32 oz.

New Fortunei Variants—This strain culminates many years of effort by a Cape Cod Breeder towards creation of Red Flowered *Fortunei* Hybrids. Many crosses with hardy red Hybrids, *haematodes* and *griersonianum* as species and in hybrid combinations are involved. 2.00 pkt., 3.00 1/32 oz.

Maximum x Arboreum, from choice free blooming selection 1.00 pkt., 2.00 1/32 oz.

Smirnowi x Hardy varieties 1.00 pkt.

Virgin (farg. hyb. x *cataw. alba*)

1.00 1/16 oz., 3.00 $\frac{1}{4}$ oz.

B. Selection of Popular Varieties as grown by English nurserymen. All are time tested and valued for their hardiness, good foliage, full flower trusses, ability to stand exposure:

Varieties each 1.00 pkt., 1.25 1/32 oz., 3.75 $\frac{1}{8}$ oz.

Alice, rose pink

Ascot Brilliant, deep crimson

Bagshot Ruby, blood-crimson

Beauty of Littleworth (griffith hyb.) white

Betty Wormald, rose-pink, purple blotch	
Britannia, bright crimson red	
Corona, coral pink	
Doncaster, scarlet crimson	
Earl of Athlone, bright blood-red	
Goldsworth Pink, pink	
Iveryanum, scarlet	
Jersey Cream, creamy yellow	
J. J. DeVink, glowing crimson	
Lady Clementine Mitford, peach pink, deeper margin	
Lady Primrose, lemon yellow, red spots	
Loder's White, pale mauve passing to pure white, large trusses	
Madame De Bruin, cerise red	
Meg Merillies, creamy white, shaded yellow and apricot	
Mother of Pearl, blush turning snow-white	
Mrs. A. R. Bide, deep pink, with brown-crimson ray	
Pink Pearl, rose-pink	
Queen Wilhelmina, large luminous cerise red	
Rose Perfection, deep rose shaded glowing crimson	
White Queen, pure white	
Williamsianum Hybrids	
Yellow Loderi, yellow	
Blend of all varieties	2.00 1/16 oz., 6.00 1/4 oz.

C. **RHODODENDRON VARIETIES** as listed in *Rhododendron Stud Book* of the Royal Horticultural Society. Most all of recent origin, some classical hybrids of long standing. Seedling material of outstanding vigor and brightness may be expected from all of these. Unless priced otherwise—Packets 1.00 each, 1.50 1/32 oz.

Albatross (Loderi x discolor), tall growing, large leaved, large trusses, white to shell pink.
Aurora (Kewense x thomsoni)
Azor (gries. x discolor), soft salmon pink trumpet
Bowbells (Corona x williamsonianum)
Cornish Cross (thoms. x griff.), superb foliage, large crimson trusses
Cupid (griff. x Luscombei)
Fireball (barbatum x Ascot Brilliant), bright red
Fireglow (fort. hybr. x griers), scarlet
Firetail (Britan. x eriog), fine red shade
Goldsworth Yellow (caucas. x campyl.), apricot changing to yellow
Isabella (griff. x auric), large, fragrant, white
Kewense (griffithianum x fortunei)
Lady Bessborough (disc. x campyl. elatum), vigorous shrub, creamy yellow-orange, pink-maroon blotch
Lodauric (Loderi x auricul.), large grower, huge trumpets, white, fragrant, late.
Loderi (griff. x fort.)
Variant King George, pink buds opening white
Variant Venus, white, flushed pink
Variant Pink Diamond, clear blush
Luscombei (fort. x thoms.), large pink, excellent foliage
Mrs. Kingsmill (Penjerrik, A. M. var.) (campyl. el. x griff.) yellow
Pink Shell (griff. x H. M. Ardene), rose-pink

C. RHODODENDRON VARIETIES (continued)

Polar Bear, (diaprepes x auric.) magnificent late flowering giant, large white trusses
 Queen o' the May (Pink Bell x grier), excellent white
 Rosabel (Pink Shell x grier.), large pale pink, darker veins
 Shilsoni (thoms. x barb.), deep crimson red
 Snow Queen (griff. x maximum x Loleri), pure white
 Souldis, (soulei x disc.), large trusses, white bell shaped flowers
 Susan (campanul. x fortunei), white, creamy yellow or pink
 Tally Ho (griers. x eriogynum), bright vermillion
 Blend of Stud Book varieties 2.50 1/16 oz., 7.50 1/4 oz.

Seeds of B & C items usually not available before February - March.

SEEDLING GROWERS' REFERENCE

	Ounces		Thousands	
Austrian Pine	6.4	see	Pinus nigra	26
Red Pine	3.2	see	Pinus resinosa	52
Scotch Pine	4.4	see	Pinus sylvestris	78
White Pine	6	see	Pinus strobus	27
Black Hills Spruce	3	see	Picea glauca densata	188
Blue Spruce	4	see	Picea pungens glauca	106
Norway Spruce	4.4	see	Picea abies	64
White Spruce	2.5	see	Picea glauca	240
Douglas Fir, Blue	6	see	Pseudotsuga taxifolia glauca	42
Douglas Fir, Gray	6	see	Pseudotsuga taxifolia caesia	42
Hemlock	3	see	Tsuga	187
Larch—European	8	see	Larix—decidua	77
Japanese	4	see	leptolepis	118

Figures as given represent average seed counts per pound and approximate amounts in ounces required per 48 square feet of seed bed when broadcast.

PINE LORE

With many growers confused as to what strains of Scotch Pine to plant we feel competent in giving the following suggestions:

Practically all strains are, for some condition or other, suitable both for forest planting, i.e., timber production and for use as ornamentals or Christmas trees.

In general two major races of Scotch Pine concern us here:

Strains from Northern Europe growing on the sandy plains which stretch from the coast of Belgium and Holland all the way east to, and around, the shores of the Baltic Sea. They are considered good strains for reforestation, grow comparatively fast, but usually have the objectionable feature of foliage discoloration with the approach of cold weather. They all do best on deep, sandy soils. If planted on better soils plants have a tendency to "overeat", grow too fast and are prone to fall prey to disease and insect infestations. As an exception as to winter color the Pine strain of the North German low plain warrants attention.

The Mountain Strains from various origins in Europe usually growing on stony soils are better adapted for all around planting. It is from these strains that best results can be expected for use as Christmas tree. Grown on sandy soils plants from these strains may require feeding to show best foliage color.

SCOTCH PINE—Seed from Highland Forest in Southern France (formerly offered as green strain)—Western Europe, elevation 2,700–3,600 feet has been the preferred choice of Christmas Tree growers for many years. It keeps its color well, is short needled, fairly fast growing and of bushy habit, much used for wind-breaks, shelter planting, landscaping; 86,000 seed per pound.** This strain is known under several names: Auvergne, French Blue, Haute Loire, Noble Race.

SCOTCH PINE—Vosges Mountains of North Eastern France. With supplies of certified origin being available from a closely defined forest area under extensive management we wish to offer this strain for trial. A hill strain from elevations 800–1,000 ft., growing on sandstone (silica) formations, receiving an annual precipitation of above 32 inches. A valuable feature, conducive to nursery handling, is the lateral development of its root system with no tap root to speak of. The tree is rather fast growing with straight stems and winter green foliage.

SCOTCH PINE—Seed from Spanish mountain sources. Because of good foliage color and excellent seed grade available, Christmas tree growers will want to try for their merits the three strains as offered on page 12.

SCOTCH PINE—Seed from Austrian Forests, a hill strain, elevation 1,400 feet, green needles, straight stems, small crowns, 78,500 seeds per pound. This strain ranks second in choice for Christmas tree production.

**seed counts as given here are approximate, weather conditions causing variations from year to year.

SCOTCH PINE—Belgian Campine—we are again offering this lowland strain because of its excellent qualities as a forest tree. It is fast growing with straight stems, attaining largest average height and bole increment in comparison to other strains of Central Europe. While the foliage remains green in winter it is not favorably regarded by Christmas tree growers because of its long needles. Some, however, report that it responds well to shearing and like it for that reason. The tree does well on sand.

SCOTCH PINE—Seed from North German Low Plain. This strain has lately come to the attention of Christmas tree growers for its ability to do well on sand. Trees about twenty years old, on our own land, have shown only the slightest of foliage discoloration during the cold months in comparison to definite yellowing of Riga strain (Latvia) trees. Color, somewhat more intense than with the latter, is a bright-bluish green. Needles are from 2½-3 inches long, a trifle wider and heavier in texture than those of the 2-2¼ inches long of the Riga strain. Seasonable increase is moderate, little in excess of Riga strain trees. We will supply certified seed from selected stands, collected under supervision of state foresters.

SCOTCH PINE—The West Baltic Strain from the East Coast of Sweden is somewhat different from the East Baltic or Riga strains which it surpasses in rate of annual increase. This is possibly the best strain for timber and planting in the North. 90,000 seeds per pound. Seedlings are unusually resistant to adverse conditions.

PINUS MUGO (MONTANA)—which is much planted on mountain slopes and steep banks to stop erosion, rock and snow slides, is of equal value for stopping wind erosion on dune lands in coastal districts. Closely planted it will form, in time, impenetrable thickets, a barrier to wind-blown sand, a refuge for wild life.

PINUS MUGO PUMILIO — Shrubby Swiss Pine as indicated by its form name Pumilio i.e. Dwarf, is the smallest of the Mountain Pines. Seed, certified as to origin, comes, we the assured, from pure stands at high altitude, 4,300-4,800 feet, without presence of trees of the Tree Swiss Pine (*rostrata*) to influence the dwarf habit by cross-pollination.

PSEUDOTSUGA TAXIFOLIA (douglasii) CAESIA — The Gray Douglas Fir is considered to be a form intermediate between the green Pacific Coast and the blue Rocky Mountain varieties which it surpasses in rate of seasonal increase. As an ornamental it is preferred to the Rocky Mountain type in sections where trees of the latter are affected with premature dying of lower branches. It is much used as a Christmas tree either cut from the wild or nursery grown. Originating in interior sections with drought conditions in summer and severe cold weather in winter it is entirely hardy in the north, reported thriving in cultivation in Finland. We take pride in the fact of having been the first seed-house in the states to list and describe this tree a good many years ago.

DORMANCY IN SEEDS OF PINE, SPRUCE, OTHER CONIFERS — Failure to germinate promptly certain conifer seeds is often due to the fact that no consideration had been given to dormancy factors. Seeds most usually concerned are:—White Spruce, White Pine, other Pines of the Cembra, Flexilis and Strobus groups.

In Fir (*Abies*), Hemlock (*Tsuga*), Douglas Fir (*Pseudotsuga*), Larch (*Larix*), Sitka Spruce dormancy occurrence is variable with dormancy found in some lots and none in others.

In Blue Spruce (*Picea pungens*) fifty percent of seed are dormant, the other half fast germinating.

Late spring planting of all of the before mentioned is apt to result in total failure or partial germination only. Fall planting of some, early spring planting for others or pre-treatment (stratification) of seed lots will be required for best results. Growers are requested:—

- A. To consult reference books for these problems.
- B. For earliest spring planting to prepare their beds in the fall, not to touch bed surface at sowing time but to dress with dry peatmoss, sow and cover with peatmoss and shades. Boarding-in of beds will facilitate this procedure.

RODENT REPELLENT — Seed destruction by foraging rodents and birds may be prevented by dusting seeds with Redlead powder. Seeds are being soaked over-night, superficially drained and the Redlead mixed in until all seeds are coated. A little goes a long way.

DAMPING OFF — Soil and seed treatment with commercially available weed-killers and fungicides is recommended. Bed preparation with humus materials and sand to insure a porous, moisture and air retaining surface is essential. Proper covering of seed will help much to alleviate damping-off conditions. It is advisable to cover seeds with a layer of dry soil, (just enough to cover seeds) taken from the walk between beds and applied with a sweeping motion from a, preferably rimless, square shovel. Over this a layer of sand, about $\frac{1}{4}$ inch thick, is applied. The light colored sand surface will reflect heat rays, act as a mulch and moisture retainer, prevent germination of weed seeds to a great extent.

CONDITIONS IN OUR FAVOR PERMIT US TO MAKE THE FOLLOWING CHANGES.

PAGES		oz.	$\frac{1}{4}$ lb.	lb.
5	CORNUS florida, from Red Flowering Dogwood, clean	1.70	4.75	
9	LARIX leptolepis	2.20	6.00	
11	PICEA abies, Southeastern foothills of Alps Mts., Central Europe	1.85	5.50	
	PICEA abies, Central European origins	1.25	3.25	
	PICEA abies, domestic Lake States	1.35	3.20	8.50
	PICEA glauca, from planted stands near sea-level	1.10	3.00	
12	PINUS resinosa, Lake States	1.75	4.50	12.00
	PINUS strobus, Lake States	.95	2.50	7.00
17	THUJA occidentalis pyramidalis, from own specimens	1.75	4.75	12.50
	TSUGA canadensis, Northern crop	1.75	4.50	12.00
19	APPLE, French Seed, Cedar Crab	.65	1.75	
	APPLE, seed from East Central Europe	.80	2.25	

BOOKS

General information as to how and when to plant, as often requested, cannot be given in letter form.

Purchase of suitable books along these lines, we believe, is the best initial investment a beginner can make toward success in his endeavor.

Books No. 12, 13 and 16 can be especially recommended.

1. **THE AZALEA BOOK** By FREDERIC P. LEE
A complete authoritative handbook of Azalea culture—including tested methods of selection, planting, and cultivation—azalea history—extensive descriptive lists of species and hybrid groups, of both deciduous and evergreens—recommended varieties for gardens. Fully illustrated in color and black and white \$8.95
Books by Alfred C. Hottes—General information, propagation included, about Trees, Shrubs and Perennials.
2. **THE BOOK OF TREES**—448 pages—200 illustrations \$4.00
3. **BOOK OF SHRUBS**—448 pages — 191 illustrations \$4.00
4. **BOOK OF PERENNIALS**—280 pages—103 illustrations \$2.75
5. **CULTIVATED CONIFERS IN NORTH AMERICA** By DR. L. H. BAILEY
404 pages, 48 full page photos, 114 line drawings. Approximately 1000 conifers (species and varieties together) propagation, care, diseases, protection \$13.50
6. **FLORIST CROP PRODUCTION AND MARKETING** By KENNETH POST, PhD.
The application of scientific facts to the production and marketing of florist cut-flowers, potted plants and bulbs grown in the greenhouse or in the field. 906 pages, profusely illustrated \$10.00
7. **HANDBOOK OF THE TREES OF THE NORTHERN STATES AND CANADA** By ROMEYN B. HOUGH
417 pages, 498 photographs showing trunk, leaves, twigs and fruits of each tree \$750
8. **HARDY RHODODENDRONS** By FREDERICK STREET
This delightful book written by an English nurseryman along practical lines traces the development of cultural varieties, gives all the information required for their successful culture from planting to propagating. \$3.75
9. **HORTUS SECOND** By L. H. and ETHEL ZOE BAILEY
A concise dictionary of Gardening and General Horticulture. Apart from general information invaluable as a plant directory alone \$13.50
10. **MANUAL OF CULTIVATED TREES AND SHRUBS** By ALFRED REHDER
The best reference book available giving detailed description of every hardy tree and shrub in cultivation. 966 pages \$12.50
11. **MODERN ROSES V** McFARLAND
Compiled by J. Horace McFarland Co., and the American Rose Society. Rose Species described by Dr. George H. M. Lawrence of Bailey Hortorium, Cornell University.

BOOKS

Here is the latest edition of the rose directory consulted by rosarians for more than twenty years. The book is not limited to Modern roses in a strict sense, but also includes varieties that are of historical or botanical importance. Straightforward, non-technical descriptions of 7,652. Roses including 333 species. Here you will find:—

Description of the flower and plant, with correct name and all known synonyms, class to which each variety belongs, name of originator and introducer, with date of introduction.

Pronunciation of many variety names, to make every-day usage easier.

Originators' Lists of all roses credited to an individual or firm
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12. **PLANT PROPAGATION PRACTICES**, by James S. Wells, gives a wealth of information on water, heat, light requirements, shading methods of handling seeds and cuttings. Directions for grafting, layering and division, control of pests and diseases and preparation of propagated material for field planting. Detailed procedures for a select group of plants. 334 p., illus. (1955). \$7.50

13. **SEEDING AND PLANTING IN THE PRACTICE OF FORESTRY**
By J. W. TOUMEY and C. F. KORSTIAN
A Manual for the guidance of forestry students, foresters, nurserymen, forest owners and farmers.

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14. **STANDARDIZED PLANT NAMES**
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15. **WILD FLOWERS AND HOW TO GROW THEM**
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Described as the first and only practical book on the cultivation of wild flowers, with full information on where to find them, how to identify them positively, how to transplant and propagate. \$3.95

16. **"WOODY-PLANT SEED MANUAL"** — with many illustrations and tables. The best new publication in a generation for those who are concerned with the intricate subject of knowledge and treatment of seeds of woody plants comes from the U. S. Department of Agriculture.

Prepared by the Forest Service—Miscellaneous Publication No. 654, for sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C. Please do not order from us. Same applies to the following.

17. **PLANTING THE SOUTHERN PINES** by PHILIP C. WAKELEY
Agriculture Monograph No. 18. Forest Service, U. S. Department of Agriculture.

Book prices are postpaid in U.S.A. Terms net cash with order.

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